COMMONWEALTH OF MASSACHUSETTS
Energy Facilities Siting Board

In the Matter of the Petition of Brockton Power, LLC for Approval to Construct a Bulk Generating Facility in the City of Brockton, Massachusetts	)	EFSB 99-1A

FINAL DECISION ON REQUEST FOR EXTENSION OF APPROVAL

Denise L. Desautels
Presiding Officer
August 18 , 2003

On the Decision:
William S. Febiger
Amy J. Barad

APPEARANCES: David S. Rosenzweig, Esq.
Erika J. Hafner, Esq.
Keegan, Werlin & Pabian, LLP
21 Custom House Street
Boston, Massachusetts 02110-3525
FOR: Brockton Power, LLC
Petitioner

Michael D. Vhay, Esq.
Piper Rudnick, LLP
One International Place
Boston, Massachusetts 02110-2607
FOR: Tofias Realty Trust
Interested Person

Edward L. Selgrade, Esq.
200 Wheeler Road, 4th Floor
Burlington, Massachusetts 01803
FOR: American National Power, Inc.
Interested Person

Mary Beth Gentleman, Esq.
Foley Hoag LLP
155 Seaport Boulevard
Boston, Massachusetts 02210
FOR: USGen New England, Inc.
Interested Person

Mark Landin
Sigma Consultants, Inc.
95 Main Street
Maynard, Massachusetts 01754
FOR: Sithe Energy, New England
Interested Person

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LIST OF ABBREVIATIONS

Abbreviation	Explanation
Action by Consent	Action by Consent, Brockton Power LLC, EFSB 99-1A, March 10, 2003
AWRF	City of Brockton's Advanced Water Reclamation Facility
Brockton	City of Brockton
Brockton Power	Brockton Power, LLC
Brockton Power Decision	Brockton Power, LLC, 10 DOMSB 157 (2000)
Brockton Power Project	Brockton Power, LLC's proposed 270 MW electric generating facility
BTu	British thermal unit
Cabot Power Procedural Order	Cabot Power Corporation, EFSB 91-101A, December 23, 1997 Procedural Order
Company	Brockton Power, LLC
Company Brief	Brockton Power, LLC's brief
CPA	Comprehensive Plan Approval
dBA	Decibel
DPW	Brockton Department of Public Works
EPA	The United States Environmental Protection Agency
ERP	Emergency Response Plan
EUA	Eastern Utilities Associates Service Corporation
kV	Kilovolt
L_{90}	The level of noise that is exceeded 90 percent of the time
L_{dn}	A-weighted noise levels averaged over a 24 hour period with a 10 dBA penalty for noise during nighttime hours
L_{eq}	A-weighted noise levels averaged over a specified period
MBTA	Massachusetts Bay Transportation Authority
MEPA	Massachusetts Environmental Policy Act
MDEP	Massachusetts Department of Environmental Protection
MW	Megawatt

National Grid	National Grid USA Service Company, Inc.
NO_2	Nitrogen dioxide
NO_x	Nitrogen oxides
$PM_{2.5}$	Particulate matter smaller than 2.5 microns
ppm	Parts per million
PSD	Prevention of significant deterioration
Request for Extension	February 25, 2003 Request to Extend Siting Board approval in Brockton Power, LLC, 10 DOMSB 157 (2000)
SILs	Significant Impact Levels
SPCC	Spill Prevention Control and Countermeasure
Siting Board	Energy Facilities Siting Board

The Energy Facilities Siting Board ("Siting Board") hereby APPROVES subject to a condition the request of Brockton Power, LLC for an extension of the Siting Board's approval granted in Brockton Power, LLC, 10 DOMSB 157 (2000), to construct a 270-megawatt natural gas-fired combined-cycle generating facility at a site in Brockton, Massachusetts.

I. INTRODUCTION AND PROCEDURAL HISTORY

A. Description of Proposed Project, Site, and Interconnections

Brockton Power, LLC ("Company" or "Brockton Power") has proposed to construct a nominal 270 megawatt ("MW"), gas-fired, combined-cycle, electric generating facility in the City of Brockton, Massachusetts ("Brockton Power Project") (Exh. BP-1, at 1-1). The project would be located on a 13.2 acre parcel of land adjacent to the City of Brockton's Advanced Water Reclamation Facility ("AWRF") (id.). Both the project site and the AWRF are within the 70-acre Oak Hill Industrial Park in the southeastern corner of the City of Brockton ("Brockton") (id.). The project site is bounded by the Salisbury Plain River to the west and the AWRF property to the south (id. at 1-11). To the north and east, the site is surrounded by commercially and industrially zoned properties which are currently occupied by warehouses and manufacturing facilities (id. at 1-12, 4.2-1).

The primary components of the Brockton Power project are based on Asea Brown Boveri GT-24 generation technology and include a gas combustion turbine, a heat recovery steam generator, a steam turbine, and a single electrical generator which would be driven by both the combustion turbine and the steam turbine (id. at 1-18). The Company stated that to maintain reliability during potential gas supply contingencies, the project would also have the ability to burn low-sulfur No. 2 distillate fuel oil for up to 720 hours (30 days) per year (id. at 1-1, 1-19). Cooling for the Brockton Power project would be provided by a six-cell wet mechanical cooling tower (id. at 1-1). The project would use approximately 1.6 million gallons per day of water for cooling tower makeup and for process water. The Company proposes to use treated effluent obtained from the AWRF to meet the cooling and process water needs of the project (id. at 1-1, 1-18, 1-22). Additional facilities associated with the project include a 115 kilovolt ("kV") switchyard, water treatment facilities, water storage tanks, and a fully-diked 500,000 gallon fuel

oil storage tank, as well as offsite gas and electrical interconnections (id.).

Natural gas for the project would be transported to the site via a new 1800-foot lateral pipeline from Algonquin Gas Transmission Company's pipeline (id. at 1-24). The lateral pipeline would run north from the project site along Industrial Boulevard to interconnect near the intersection of Oak Hill Way near Sargents Way. For electrical transmission, the project would connect with a National Grid USA Service Company, Inc. ("National Grid") 115 kV transmission line to the southeast of the project site via a new 3500-foot 115 kV line (Exhs. HO-RR-20 (a) and (b) Att.; EFSB-EL-11; Tr. 1, at 126). The interconnection route would run easterly from the project site to Oak Hill Way; at Oak Hill Way, the line would turn south and proceed for approximately 1000 feet along the street. At the southern end of the UPS complex, the line would turn easterly and run along the southern edge of the UPS property to the Massachusetts Bay Transit Authority ("MBTA") right-of-way, which it would follow to the National Grid transmission line (Exh. EFSB-EL-11; Tr. 99-1A at 25).

B. Procedural History

1. EFSB 99-1

On January 11, 1999, Brockton Power filed with the Siting Board a petition to construct and operate a gas-fired, combined-cycle electric generating facility with a net nominal capacity of approximately 270 MW in the City of Brockton, Massachusetts. On March 10, 2000, the Siting Board conditionally approved the petition of Brockton Power to construct this facility. Brockton Power, LLC, 10 DOMSB 157 (2000) ("Brockton Power Decision"). Pursuant to the Brockton Power Decision, the Siting Board's approval of the proposed facility would have expired on March 10, 2003.

2. EFSB 99-1A

On February 25, 2003, Brockton Power filed with the Siting Board a request for an extension of the Siting Board's approval of the facility until July 1, 2004 ("Request for Extension"). On March 10, 2003, the Siting Board issued an Action by Consent in which the Siting Board deferred final action on the Company's Request for Extension. Action by Consent,

Brockton Power, LLC, March 10, 2003 ("Action by Consent"). The Siting Board, however, granted an extension of its approval until such time as it ruled on the Company's Request for Extension and docketed it as EFSB 99-1A. Id.

The Siting Board conducted an evidentiary hearing on May 22, 2003. Brockton Power presented the testimony of Theodore A. Barten, P.E., Managing Principal of Epsilon Associates, Inc., who testified as to the nature of the project, changes in background conditions, environmental issues, mitigation measures, and environmental policies.

On June 3, 2003, Brockton Power submitted its brief ("Company Brief"). The record consists of 15 exhibits consisting primarily of information request responses and record request responses. Also, on June 3, 2003, the Presiding Officer granted Brockton Power's motion to take official notice of the Brockton Power Decision and the underlying evidentiary record, pursuant to 980 CMR § 1.06(7)(b).

C. Standard of Review

In order to determine whether good cause exists to grant the Company's Request for Extension as presented, the Siting Board must determine, inter alia: (1) whether there have been changes either in background conditions (e.g., land use surrounding the site) or applicable regulations sufficient to alter the underlying assumptions upon which the Siting Board based its approval; and (2) whether the length of the requested extension is reasonable. See Cabot Power Corporation, EFSB 91-101A, December 23, 1997 Procedural Order ("Cabot Power Procedural Order"); see also Action by Consent.

In Section II, below, the Siting Board considers any changes to background environmental conditions and applicable regulations sufficient to alter the underlying assumptions upon which the Siting Board based its approval. In Section III, below, the Siting Board considers the reasonableness of the requested extension period.

II. CHANGES TO BACKGROUND CONDITIONS AND REGULATORY CONTEXT

A. Land Use

1. Description

Brockton Power stated that there have been few changes to the project area since the Siting Board issued the Brockton Power Decision in March 2000 (Exh. EXT-1, at 1). The Company stated that the Brockton Department of Public Works ("DPW") has constructed new facilities just to the southeast of the project site, including a salt storage dome, a parking area, and a maintenance/garage building that is within about 1000 feet of the site (id.). In addition, the Company reported that seven new houses are under construction approximately 1400 feet from the eastern boundary of the project site, near the intersection of Plain Street and Ninth Avenue (id.).

2. Analysis

In its original review of the land use impacts of the project, the Siting Board considered the extent to which the facility would be consistent with existing land uses, state and local requirements, and policies or plans relating to land use. Brockton Power Decision at 249-250. The Siting Board also considered the potential impacts of the project on terrestrial resources, including vegetative cover and habitat. Id. at 250. The record shows that although new DPW facilities have been built on property adjacent to the power plant site, this use is consistent with the industrial character of the area and would not be adversely affected by the construction of the power plant. The record also shows that although new houses are being constructed to the northeast of the site, they will be separated from the plant by existing commercial facilities, vegetated areas, and the MBTA right-of-way (Exh. EXT-1(a)).[1] Therefore, the Siting Board finds that the changes in land use are not sufficient to alter the underlying assumptions upon which it based its approval.

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[1] Potential noise impacts of the plant at the new housing location are discussed in Section II. B., below.

B. Noise

1. Description

The Company performed its original analysis of noise impacts based upon short-term (20-minute) monitoring data collected in 1998 at the property line and at five nearby residential locations (Exhs. HO-RR-4S Att. at 7-11; EXT-1(b) at 7-5 to 7-15, 7-25). The Company stated that measurements were taken during times of the day and night that were thought to be "quiet periods" (Exh. EXT-1(b) at 7-5). For the daytime samples, this meant during periods of off-peak traffic; for the nighttime samples, it meant the period between midnight and 5 a.m. (id.). The Company reported that the nighttime ambient L_{90} sound levels[2] measured at the residential locations near the site were in the range of 40 to 45 decibels ("dBA") (id. at Tables 7.1-1 to 7.1-4, 7.1-6). The Company detected daytime L_{90} levels at these locations in the range of 46 to 53 dBA (id.).

The Company stated that in May 2000, it conducted additional background ambient sound level monitoring in response to a request from the Massachusetts Department of Environmental Protection ("MDEP") (Exh. EXT-1).[3] This exercise consisted of approximately 74 hours of continuous monitoring at the two closest residential locations to the east and west of the project site (Exh. EXT-1(b) at 7-15). The monitoring period started at noon on Friday, May 5 and ended at approximately 2:00 p.m. on Monday, May 8 (id.). Therefore, the monitoring period included weekday, weekend, daytime and nighttime periods.

The Company indicated that the lowest nighttime ambient levels measured in 2000 were significantly lower than the original short-term sound levels measured in 1998 (id. at 7-25). However, in the Company's opinion, the data from the continuous monitoring in 2000 compared "reasonably well" to the data from the 1998 short-term monitoring for those times of night at

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[2] The L_{90} sound level is the level of noise that is exceeded 90 percent of the time.

[3] According to the Company, MDEP was considering a change to its noise policy to require continuous sound level monitoring to characterize background noise (Tr. 99-1A at 10). The Company stated that MDEP requested Brockton Power to conduct some continuous monitoring as part of its application for air plan approval while it was seeking comment on its proposed policy change (id.). According to the Company, the policy change has not been formally issued (id. at 11).

which measurements were taken in 1998 (id.).[4] The Company explained that the continuous monitoring in 2000 provided information from additional times of the night during the weekend that were not monitored in 1998 (id.). In particular, the continuous monitoring captured a period with less activity in the adjacent industrial park than at other times of the week (id.; Tr. 99-1A at 13). According to the Company, these factors led to the quietest sound levels observed in 2000 that were lower than those identified in 1998 (Exh. EXT-1(b), at 7-25).

The new monitoring showed quietest nighttime ambient L_{90} sound levels of 34.5 dBA and 34.0 dBA at Hayward Street and Appleby Street, respectively (id. at 7-24). To be conservative, the Company used the 34.0 dBA figure as the assumed nighttime baseline for modeling impacts at the remaining residential locations in the vicinity of the project site (id. at 7-25). The measured and assumed levels are 6 to 9.5 dBA lower than the corresponding values obtained in 1998 (id. at Table 7.1-10; Exh. HO-RR-4S Att., Table 7.1-8). With respect to daytime periods, the new monitoring showed quietest L_{90} sound levels of 49.5 dBA and 35 dBA at Hayward Street and Appleby Street, respectively (Exh. EXT-1(b) at 7-26). The Company used a figure halfway between the two measured levels, or 42 dBA, as the assumed daytime baseline for modeling noise impacts at the remaining residential locations (id.).

In recognition of the lower measured background sound levels, the Company stated that it has incorporated additional noise control measures into the design of the cooling tower and turbine air inlets (Exh. EXT-1, at 2). With these modifications, the Company provided updated calculations of expected facility noise levels of 34 to 42 dBA at residential receptor locations (Exh. EXT-1(b), Table 7.1-10), which are lower than the range of 38 to 47 dBA associated with the original design (Exh. HO-RR-4S Att., Table 7.1-8). The Company then recalculated

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[4] For times of night comparable to those during which the 1998 monitoring took place, the 2000 L_{90} sound levels range from 1.5 to 8.5 dBA below the 1998 levels (Exh. EXT-1(b) at Tables 7.1-2, 7.1-4, 7.1-7, 7.1-8).

expected total noise levels using the new figures for ambient and plant noise. The following table presents results from the updated monitoring and modeling:

Increases to Ambient Baseline at Brockton Power Receptor Sites (Modeling Based on 2000 Data)

Receptor Location	Nighttime Ambient, L_{90}, dBA	Daytime Ambient, L_{90}, dBA	Expected Plant Noise, Leq, dBA	Nighttime Total, dBA	Nighttime Increment dBA	Daytime Total, dBA	Daytime Increment dBA
R-1, S	34	42	34	37	3	43	1
R-2, W	34.5	49.5	42	43	8	50	1
R-3, NE	34	42	39	40	6	44	2
R-4, E	34	35	39	40	6	40	5
R-5, N	34	42	36	38	4	43	1

Source: Exh. EXT-1(b), Table 7.1-10

As the table above shows, the expected nighttime increment (i.e., the difference between ambient and total noise) now ranges from 3 to 8 dBA. This represents an increase over the original nighttime increments, which ranged from 2 to 5 dBA based on the 1998 data and original plant design (Exh. HO-RR-4S Att., Table 7.1-8). The recalculated daytime increments range from 1 to 5 dBA, as compared to 0 to 2 dBA based on the 1998 data (id.). However, the total noise levels, which ranged from 42 to 49 dBA at night and 48 to 54 dBA during the day based on the 1998 data (Exh. HO-RR-4S Att., Table 7.1-8), are now lowered to a range of 37 to 43 dBA at night and 40 to 50 dBA during the day based on the 2000 data (Exh. EXT-1(b), Table 7.1-10). Overall, both daytime and nighttime total L_{90} noise levels are lower (by 4 to 8 dBA) at every residential location, as compared to the analysis based on the 1998 data (id.; Exh. HO-RR-4S Att., Table 7.1-8).

The Company also provided 24-hour day-night noise levels for the two residential receptor locations that it re-monitored in 2000 (Exh. RR-EXT-2).[5] At one location (Hayward Street or "R-2"), the existing L_{dn} is approximately 67.2 dBA; with the addition of facility noise,

[5] The L_{dn} is defined as the equivalent A-weighted sound level during a 24-hour time period with a 10 decibel weighting applied to the equivalent sound level (L_{eq}) during the nighttime hours of 10:00 p.m. to 7:00 a.m. (Exh. RR-EXT-2).

the L_{dn} would be 67.3 dBA (id.). At the other residential location (Appleby Street or "R-4"), the existing L_{dn} is approximately 53.5 dBA, and the expected L_{dn} with operation of the facility is about 54.3 dBA (id.).

The Company stated that at the new homes under construction in the vicinity of Plain Street and Ninth Avenue, it expects sound levels to be similar to those at Appleby Street (Tr. 99-1A at 17).

The Company noted that despite the additional noise mitigation it has proposed, noise increments of 10 dBA would still occur at non-residential locations slightly beyond the plant site boundary to both the north and south (Exh. EXT-1(b) at Figs. 7.1-9, 7.1-10; Tr. 99-1A at 14-15). The Company stated that it would need to obtain noise easements from two property owners (Tr. 99-1A at 14), to comply with MDEP's policy limiting noise at the property line to 10 dBA over the background L_{90}. The Company stated that it has held discussions with both property owners, one of which is the City of Brockton, and that both have indicated a willingness to grant such easements (id. at 14-15).

2. Analysis

The record shows that the short-term noise monitoring conducted in 1998 and the continuous noise monitoring conducted in 2000 yielded different measured ambient sound levels. However, because different monitoring methodologies were used, the record does not demonstrate definitively that background noise conditions changed between 1998 and 2000.[6] As the Company noted, the times of night during which noise was monitored during 1998, while relatively quiet, were not necessarily the absolutely quietest periods. Further, only minor changes in land use occurred near the facility from 1998 to 2000. Therefore, it is unclear whether ambient sound levels actually changed from 1998 to 2000.

Lower ambient sound levels in the community would make noise from the facility more noticeable. Therefore, Brockton Power has proposed design changes to reduce operational noise

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[6] The Siting Board notes that it would be improper to re-adjudicate, in a Request for Extension, data-gathering methodologies accepted in the underlying case. Box Pond Ass'n v. Energy Facilities Siting Bd., 435 Mass. 408, 419-420 (2001).

from the plant. Despite these noise mitigation measures, however, the record shows that, for the quietest nighttime hours, the Company's calculation of the increment in total L_{90} noise above ambient noise with operation of the project remained larger than in the original analysis based on the 1998 data and original plant design. On the other hand, the combination of lower measured ambient noise levels and improved noise mitigation design resulted in calculated ambient, facility, and total noise at residential receptor locations that are lower than those in the original analysis. In the original analysis, the maximum calculated nighttime increments above ambient at the nearest residential receptors – 4 to 5 dBA – were well below the increments of up to 8 dBA allowed in previous cases that the Siting Board cited for comparison. Brockton Power Decision at 224. The Company's updated analysis of potential noise impacts on residential receptors from operation of the proposed facility shows that nighttime increments above ambient levels, although greater than in the original analysis, are a maximum of 8 dBA at the nearest receptor, with increments ranging from 3 to 6 dBA at the other modeled locations. Thus, the calculated nighttime increments remain consistent with past cases in which the Siting Board has allowed noise increments at residential receptors of up to 8 dBA. Berkshire Power Development, Inc., 4 DOMSB 221, at 442-443 (1996); ANP Bellingham Energy Company, 7 DOMSB 39, at 193-194 (1998).

The revised analysis also shows that, as in the original decision, the maximum residential L_{90} increase would occur in an area with existing L_{dn} noise levels well above the United States Environmental Protection Agency ("EPA") guideline of 55 dBA.[7] In the present case, however, the facility's contribution to L_{dn} noise levels in the Hayward Street area would be only 48 dBA, well below both the 55 dBA guideline and the background L_{dn} of approximately 67 dBA, and would result in an increase in L_{dn} noise of only 0.1 dBA at this location.

In summary, it is not clear from the record whether background noise conditions have changed since the Siting Board issued its original approval. Regardless of whether background noise conditions have actually changed, the Company has proposed additional noise mitigation

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[7] In two past cases, the Siting Board has cited high L_{dn} noise levels as a consideration in holding L_{90} increases to lower limits than 8 dBA. U.S. Generating Company, 6 DOMSB 1, at 164-166 (1997); Boston Edison Company, 1 DOMSB 1, at 112-115 (1993).

which will result in (1) lower total noise levels at residential receptor locations, as compared to the analysis originally presented, and (2) noise increments that are within ranges previously found to be acceptable. Consequently, the Siting Board finds that there have not been changes to background conditions sufficient to alter the underlying assumptions upon which the Siting Board based its approval.

C. Air Quality

1. Description

On October 3, 2000, MDEP informed the Company that it had substantively completed its review of Brockton Power's Comprehensive Plan Approval ("CPA") application and had prepared a draft Plan Approval and draft Prevention of Significant Deterioration ("PSD") permit (Exh. EXT-4 Att.). According to a letter from MDEP, the Company had not, at that time, demonstrated that it held a sufficient amount of nitrogen oxides ("NO_X") emission reduction credits or other emissions reductions to meet state NO_X offset requirements at the time of plant startup (id.). In May 2002, Brockton Power requested an extension of the technical review period for the CPA application to June 30, 2004 (id.). MDEP granted this extension on June 10, 2002, reminding the Company that the pending NO_X offset issue still required resolution (id.).

The Company noted that as of March 3, 2003, MDEP had relinquished regulatory authority of the PSD program back to the EPA (Exh. EXT-4). The Company explained that if air approvals for the project were to be finalized, it would have to reapply to EPA for a PSD permit (id., Tr. 99-1A at 8). The Company expects that this would entail submitting the same documents to EPA that it previously submitted to MDEP, along with MDEP's draft PSD permit and PSD Determination of Applicability; EPA Region I would then decide whether to propose the same permit as MDEP's prepared draft (Exh. EXT-4). The Company stated that it did not anticipate that any new modeling would be required when final air permits are sought for the project (Tr. 99-1A at 30).

The Company noted that EPA has issued two new National Ambient Air Quality Standards since the original decision: a new, stricter 8-hour ozone standard of 0.08 ppm, and a new standard for particulate matter smaller than 2.5 microns ("$PM_{2.5}$") (id.). With regard to

ozone, the Company provided updated monitoring data from 1998 through 2001, as reported by MDEP for the closest monitoring station, located in Easton, Massachusetts (Exh. EXT-1, at 1). These data show compliance with the 1-hour ozone standard, but exceedances of the new 8-hour standard (id. at 2). According to the Company, EPA has not yet designated 8-hour ozone nonattainment areas; however, Massachusetts is expected to be in nonattainment for this standard (Exh. EXT-4, at 2). With respect to the new $PM_{2.5}$ standard, the Company stated that MDEP is unsure whether the state will be in attainment, although early data from a monitoring station in Brockton are within the standard (id.; Exh. EXT-1, at 2). The Company also provided updated nitrogen dioxide ("NO_2") monitoring data from the Easton monitoring station, and stated that background air quality met the (unchanged) annual NO_2 standard (Exh. EXT-1, at 2).

Finally, the Company indicated that, consistent with expectations at the time of the original decision, the draft permit for the project would allow it to burn oil for up to 30 days per year (Tr. 99-1-A at 30). However, the Company noted that MDEP has been moving toward requiring ultra-low-sulfur oil in such instances (id.). The Company indicated that such a condition is likely to be written into the final permit, which would have the effect of reducing considerably the sulfur dioxide emissions when the plant is firing oil (id.).

In its discussion of the new noise mitigation measures planned for the project, the Company acknowledged that the proposed muffling of the combustion turbine air intake could result in a minor impact on the plant's heat rate, which could change emissions on a pounds-per-megawatt-hour basis (Tr. 99-1A at 29). The Company indicated that there is a tradeoff between the capital costs of the muffling system and the extent of any incremental pressure drop through the air intake, such that a change in the heat rate could be virtually eliminated through adequate investment in the muffling upgrades (id. at 29-30). However, the Company stated that any loss of plant efficiency due to the muffling would not affect the emission limits that are written into the draft MDEP permit, which are expressed in terms of total tonnage and on a pounds-per-million Btu basis (id.).

2. Analysis

In the Brockton Power Decision, the Siting Board noted that the Company's modeling

demonstrated that the emissions from the proposed facility would be less than the Significant Impact Levels ("SILs") for all criteria pollutants, and that the Company therefore was not required to conduct interactive emissions analysis. Brockton Power Decision at 22. Like other generation projects, however, the Brockton Power project would require offsets for precursors of ozone based on the classification of Massachusetts as a non-attainment region.

Although the Company does not anticipate that any new modeling would be required when final air permits are sought for the project, the record shows changes to the regulatory environment since the original decision, including the addition of a new criteria pollutant, $PM_{2.5}$, and the recent re-assumption of PSD permitting by EPA. These factors could affect the earlier conclusion that emissions would be less than SILs, and thus whether interactive emissions analysis would be required. Therefore, the Siting Board directs the Company to inform it of any changes in the expectation that the project's emissions would be below SILs for all pollutants. Absent such changes, however, the Siting Board finds that there have been no changes to background air quality conditions that alter the assumptions upon which its earlier decision was based.

D. Traffic

1. Description

In its original analysis of traffic impacts of the project, the Company examined traffic conditions at the intersection of Sargents Way and Route 28 (Main Street), the closest major intersection to the site (Exh. BP-1, at 4.12-2 to 4.12-4). The Company determined that the existing traffic conditions qualified as "level of service 'F'," the lowest grade on a widely used rating scale (id. at 4.12-2). Although the Company proposed to mitigate adverse traffic impacts during construction of the project through such measures as police officer control during peak traffic periods (id. at 4.12-4), it indicated that signalization of the intersection would be the best approach to the problem (Tr. 2, at 343). In its 2003 filing, the Company reported that the City of Brockton has since added both a traffic signal and a turn lane to the intersection (Exh. EXT-1, at 3). The Company asserted that this has significantly improved traffic flow, particularly for traffic turning south on Main Street from Sargents Way (id.).

2. Analysis

In its original decision, the Siting Board included the following Conditions regarding traffic:

Condition H:

> "In order to minimize traffic impacts, until such time as the Route 28-Sargents Way intersection is improved, the Siting Board directs the Company to limit oil deliveries and other commercial delivery traffic to off-peak hours except where emergency conditions exist."

Condition I:

> "In order to minimize traffic impacts, the Siting Board directs the Company to work with the City of Brockton Department of Public Works and with the management of other commercial or industrial facilities within the Oak Hill Industrial Park to identify and if appropriate promote implementation of plans to improve the Route 28-Sargents Way intersection."

Brockton Power Decision at 269.

The record shows that significant improvements have since been made to this intersection with the addition of both a signal and turning lane. Given these improvements, the Siting Board finds that Condition H and I are moot and no longer requires Brockton Power to limit oil deliveries and other commercial delivery traffic to off-peak hours or to work to further improve the intersection.

E. Interconnection

1. Description

Brockton Power initially proposed to connect its project to the electrical grid via a new 115 kV single-circuit line that would run from the plant through the industrial park, then along the existing MBTA right-of-way to the existing transmission line corridor (Exh. EXT-RR-3; Tr. 1, at 22). This corridor contains two 115 kV circuits, one of which was to be tapped by the

line from the new plant (id.). In August 1999, EUA Service Corporation ("EUA"), then the owner of the transmission line, issued a System Impact Study for the proposed project which recommended a double-circuit line to extend the existing 115 kV circuit from the MBTA right-of-way to a three-breaker ring at the plant site (Exh. EXT-RR-3; Tr. 1 at 23).[8] Due to the uncertainty about the ultimate design of the interconnection, and the lack of information regarding the potential environmental impacts of the design recommended by EUA, the Brockton Power Decision required Brockton Power to inform the Siting Board of any change in the interconnect line, including the possible change of using a double-circuit configuration for the interconnection, so that the Siting Board might determine whether to inquire further into the matter. Brockton Power Decision, at 209, 216, 246.

The Company stated that after the underlying decision was issued, National Grid acquired EUA, including its transmission assets (Exh. EXT-RR-3). Although the Company asserted that "the project will proceed based on the [interconnect] design recommended by EAU" (id.), the Company also asserted it is likely that the System Impact Study of August 1999 will be reviewed and updated by National Grid based upon the new generating capacity in southeastern Massachusetts and Rhode Island as well as any plant retirements or de-ratings and transmission system upgrades (Exh. EXT-3; Tr. 99-1A at 24). Brockton Power indicated that it would apprise the Siting Board of any changes to the project approved in the Brockton Power Decision that result from an updated System Impact Study, if and when that information becomes available (Exh. EXT-RR-3).

2. Analysis

In EFSB 99-1, the Company presented information about the impacts of the single-circuit interconnect originally proposed, and the Siting Board granted approval of the project based on its analysis of that information. In the present case, the Company has indicated that the project would instead proceed based upon a double-circuit design recommended by EUA, but the

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[8] This study was made available to the Siting Board after the close of evidentiary hearings and prior to the issuance of the Brockton Power Decision at 250, n.85. The study is part of the evidentiary record of this proceeding (Exh. EXT-9).

Company has not presented information about the impacts of that configuration. Moreover, the record shows that the design of the interconnection to the electrical grid is still uncertain, pending review by National Grid. If the Brockton Power proposes a design other than that which the Siting Board reviewed in EFSB 99-1, the Company will need to provide additional information sufficient for the Board to determine whether further inquiry of the change is warranted.

F. Conclusions on Background Conditions and Regulatory Context

The Siting Board has reviewed information regarding actual or potential changes to background conditions or regulatory context relevant to the extension of its approval to construct a generating facility in Brockton, Massachusetts. With respect to land use, noise, and air quality, the Siting Board has found that there have been no changes in background conditions or applicable regulations sufficient to alter the underlying assumptions upon which the Siting Board based its approval. With respect to traffic, the Siting Board has found that improved conditions have rendered Conditions H and I of the original decision moot and therefore, the Company is no longer required to comply with Conditions H and I. With respect to the interconnection to the electrical grid, the Siting Board has found no changes to background conditions or applicable regulations if construction of the originally proposed, single-circuit design proceeds, but reminds the Company that any change to this design, and associated impacts, must be presented to the Siting Board so it can determine whether further inquiry is warranted.

III. REASONABLENESS OF THE EXTENSION PERIOD

A. Standard of Review

In order to determine whether good cause exists to grant Brockton Power's request for an extension of its approval, the Siting Board must determine whether the length of the requested extension is reasonable. Cabot Power Procedural Order; see also Action by Consent.

B. Analysis

Brockton Power attributed its need for an extension of the approval to a combination of factors (Tr. 99-1A at 31). The Company stated that appeals of the underlying case and the

Massachusetts Environmental Protection Act ("MEPA") Certificate, as well as significant changes in the electricity market, cooled investor interest and resulted in the cancellation or delay of many energy projects (id. at 31-32; Exh. BPX-1, at 2; Company Brief at 2). The Company advised that it is seeking to transfer the development rights of the Brockton Power Project to a qualified energy company (Exh. BPX-1, at 1-2). Specifically, the Company asserted that its requested 16-month extension is reasonable and appropriate under the circumstances and that such an extension will allow Brockton Power to complete its discussions with prospective purchasers of the Brockton Power Project, secure commitments from equipment suppliers, and allow for finalization of arrangements with power purchasers, gas suppliers, and financiers (id. at 2-3; Tr. 99-1A at 35-36).

Moreover, the Company argued that the requested extension would achieve general consistency between the expiration dates of the project's Siting Board approval, its MEPA Certificate, and its MDEP Air Permit. The Company stated that the MEPA Certificate and approval expire on July 16, 2004 (Exh. BPX-1, at 2). The Company also stated that MDEP granted an extension of the technical review period for the draft MDEP Air Permit to June 30, 2004 (Exh. EXT-4, Att.).

The Brockton Power Project was delayed, in part, by the appeal of the Brockton Power Decision. While an appeal does not automatically toll a Siting Board approval, it does create an argument for the need for an extension. Moreover, because the requested 16-month extension would achieve general consistency among the tolling of the Brockton Power Project's MEPA Certificate, MDEP Air Permit, and the Siting Board's approval and allow for the transfer of development rights, it is not unduly lengthy. Therefore, the Siting Board finds that the request for a 16-month extension of the Siting Board's approval is reasonable.

IV. DECISION

In Section II, above, the Siting Board has found that with respect to land use, noise, and air quality that there have been no changes in background conditions or applicable regulations sufficient to alter the underlying assumptions upon which the Siting Board based its approval. With respect to traffic, the Siting Board has found that improved conditions have rendered

Conditions H and I of the original decision moot and therefore, the Company is no longer required to comply with Conditions H and I. With respect to the interconnection to the electrical grid, the Siting Board has found no changes to background conditions or applicable regulations if construction of the originally proposed, single-circuit design proceeds, but reminds Brockton Power that any change to this design, and associated impacts, must be presented to the Siting Board so it can determine whether further inquiry is warranted.

In Section III, above, the Siting Board has found that the request for a 16-month extension of the Siting Board's approval is reasonable.

Accordingly, the Siting Board APPROVES the Request for Extension of Brockton Power subject to the following conditions:

A. In order to minimize air quality impacts, the Siting Board directs the Company to make a monetary contribution to cost effective CO_2 mitigation programs of an amount that reflects the proposed facility's annual CO_2 emissions of 952,209 tpy over 20 years of operation.

B. In order to minimize water resources impacts, the Siting Board directs the Company to incorporate ground water protection measures such as impermeable bases into the design of bulk chemical storage containment systems to the containment system.

C. To minimize solid waste impacts, the Siting Board directs the Company to develop and implement a plan for segregating and recycling wood, metal, and other recyclable debris during the construction phase of the proposed project. In the event that the Company determines that recycling of selected construction debris is impractical or burdensome, the Siting Board directs the Company to submit a detailed evaluation of the factors that contributed to the determination, including an analysis of the waste stream, an analysis of costs associated with disposal and recycling, and a comparison of recycling costs to potential

environmental benefits of recycling at the proposed facility.

D. In order to minimize visual impacts, the Siting Board directs the Company to provide reasonable off-site mitigation of visual impacts at affected residential properties and at roadways and other locations within one mile of the proposed facility, as requested by individual property owners or appropriate municipal officials. For this decision, reasonable offsite mitigation could include shrubs, trees, or other mutually-agreeable measures, such as window awnings, that would screen views of the proposed generating facility and including the proposed electrical interconnection line.

E. In order to minimize safety impacts, the Siting Board directs the Company to provide for facility security and to limit access to the proposed site during construction and operation of the proposed facility.

F. In order to minimize safety impacts, the Siting Board directs the Company to prepare the SPCC plan and the ERP in consultation with both the City of Brockton and the Town of West Bridgewater.

G. In order to minimize safety impacts, the Siting Board directs the Company to develop and implement a plan for mitigating hazardous roadway and walkway conditions that could result from icing associated with the cooling towers.

J. In order to minimize EMF impacts, the Siting Board directs the Company to provide the Siting Board with an update on: (1) the extent and design of required transmission upgrades; (2) the measures incorporated into the transmission upgrade designs to minimize magnetic field impacts; and (3) the resulting magnetic field levels at the edge of the EUA ROW based upon the transmission upgrade design and most likely load flow scenario.

K. In order to minimize air quality impacts, the Siting Board directs the Company to inform it of any changes in the expectation that the project's emissions would be below SILs for all pollutants.

Because issues addressed in this Decision and in Brockton Power, LLC, 10 DOMSB 157 (2000) are subject to change over time, construction of the proposed generating facility must be commenced by July 1, 2004. In addition, the Siting Board notes that the findings in this Decision and in Brockton Power, LLC, 10 DOMSB 157 (2000) are based upon the record developed for each respective case. A project proponent has an absolute obligation to construct and operate its facility in conformance with all aspects of its proposal as presented to the Siting Board. Therefore, the Siting Board requires Brockton Power to notify the Siting Board of any changes other than minor variations to the proposal, so that the Siting Board may decide whether to inquire further into a particular issue. Brockton Power is obligated to provide the Siting Board with sufficient information on changes to the proposed project to enable the Siting Board to make these determinations.

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Denise L. Desautels
Presiding Officer

Dated this 14th day of August, 2003.

APPROVED by the Energy Facilities Siting Board at its meeting of August 14, 2003, by the members and designees present and voting: Stephen R. Pritchard (Acting Chairman, for Ellen Roy Herzfelder, Secretary of Environmental Affairs); W. Robert Keating (Commissioner, DTE); Deirdre K. Manning (Commissioner, DTE); and James Connelly (Commissioner, DTE).

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Stephen R. Pritchard
Acting Chairman, EFSB

Dated this 14th day of August, 2003.

Appeal as to matters of law from any final decision, order, or ruling of the Siting Board may be taken to the Supreme Judicial Court by an aggrieved party in interest by the filing of a written petition praying that the order of the Siting Board be modified or set aside in whole or in part.

Such petition for appeal shall be filed with the Siting Board within twenty days after the date of service of the decision, order, or ruling of the Siting Board, or within such further time as the Siting Board may allow upon request filed prior to the expiration of the twenty days after the date of service of said decision, order, or ruling. Within ten days after such petition has been filed, the appealing party shall enter the appeal in the Supreme Judicial Court siting in Suffolk County by filing a copy thereof with the clerk of said court. (Massachusetts General Laws, Chapter 25, Sec. 5; Chapter 164, Sec. 69P).